Photo of "sea monster" taken in January 1897 on beach near St. Augustine, Fla., shows creature's massive muscles.

Octopus Giganteus Verrill

GIANT OCTOPUS or WHALE?

By Gary Mangiacopra
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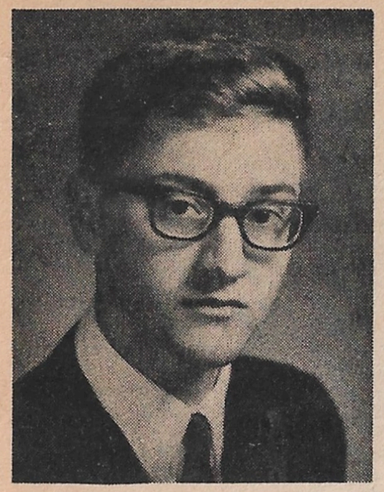
For half a century marine biologists have dismissed Verrill's "giant octopus" as remains of a whale — but modern research indicates he may have been right.

REPORTED REMAINS of "sea monsters" found washed ashore on beaches usually turn out to be mutilated carcasses of sharks, whales, oarfish or other known denizens of the deep. But occasionally an unknown animal — one whose existence is not even suspected — is discovered by chance in this way. Such a chance discovery, made in 1896, still is the subject of controversy in marine zoology.

The story began unexpectedly on the evening of November 30,



ABOUT THE AUTHOR

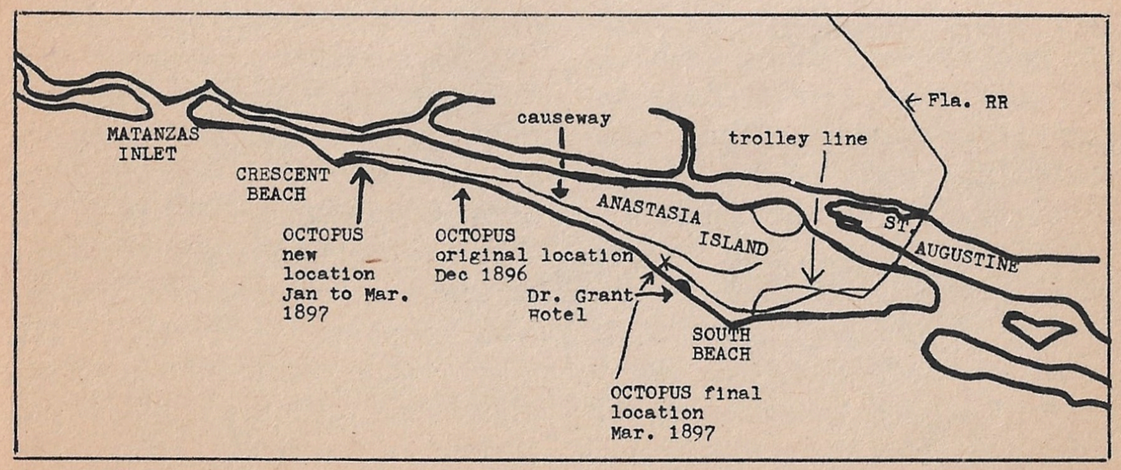
GARY S. MANGIACOPRA was born in Bridgeport, Conn., in December 1950. He received his Bachelor of Science degree in biology from the University of New Haven in June 1975.

He decided to use Verrill's giant octopus as the topic for his thesis in the spring of 1972. He reasoned that since Professor Verrill was associated with Yale University, only a few miles from his own school, he could easily acquire the original references in a few months; the few months expanded to nearly three years!

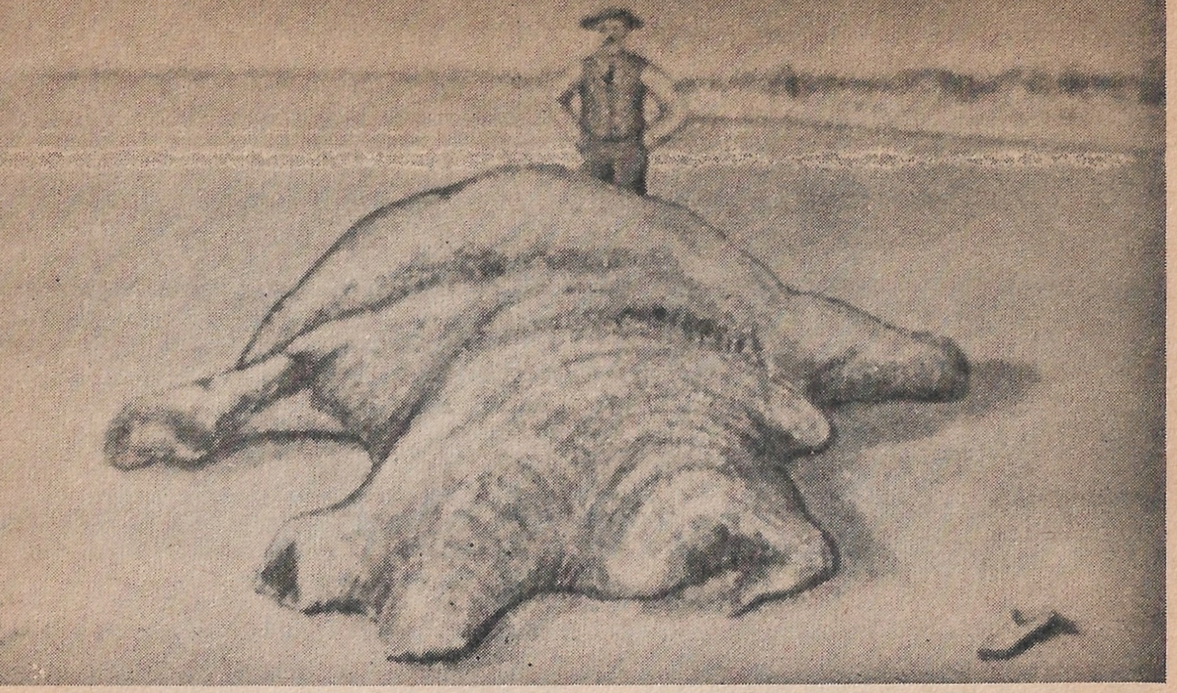
He presented his findings on the giant octopus at the International Fortean Organization's 1975 Fortfest.

1896, when two young bicyclists, Herbert Coles and Dunham Coretter, pedaled along Anastasia Beach near St. Augustine, Fla. Their planned trip to Matanzas Inlet at the far south end of the beach ended abruptly when they came upon the remains of an immense carcass embedded in the sand.

The two boys immediately notified Dr. DeWitt Webb, St. Augustine's leading naturalist. A medical doctor by profession, Dr. Webb's interests in both local history and natural history had led him to found the St. Augustine Historical Society and Institute of Science, which he served as president for 34 years. During



Author's map shows the St. Augustine, Fla., beach area where the giant octopus was found in December 1896 and its later locations after storms moved it.



Drawing published in "The American Naturalist" in April 1897 was based on the only photograph that clearly indicates stumps of five arms in the foreground.

those years he devoted considerable effort and money to maintaining and expanding the society.

So the next evening, December 1, Dr. Webb along with several others examined the beached "whale." Their first examination revealed that due to the isolation of the beach during the winter months the carcass probably had lain there several days before its discovery. They estimated its weight at five tons as it had sunk into the sand to a considerable depth. The carcass was much mutilated at one end and in an advanced state of decomposition. That portion visible above the sand measured 23 feet long, four feet high and 18 feet across the widest part of the "back." The outer surface of the hide was light pink, nearly white, and had a silvery appearance. Dr. Webb's startling conclusion was that the remains were not of a beached whale as originally supposed but of a monstrous octopus!

Rain prevented Dr. Webb from examining the carcass again until the fifth of December and during this wait he must have realized the importance and uniqueness of the chance discovery and the need for accurate records. On December 7, 1896, Dr. Webb revisited the site with two amateur photographers, Edgar Van Horn and Ernest Howatt, who took several different shots of the octopus where it lay embedded in the sand. Unfortunately these photographs now are missing but two drawings based

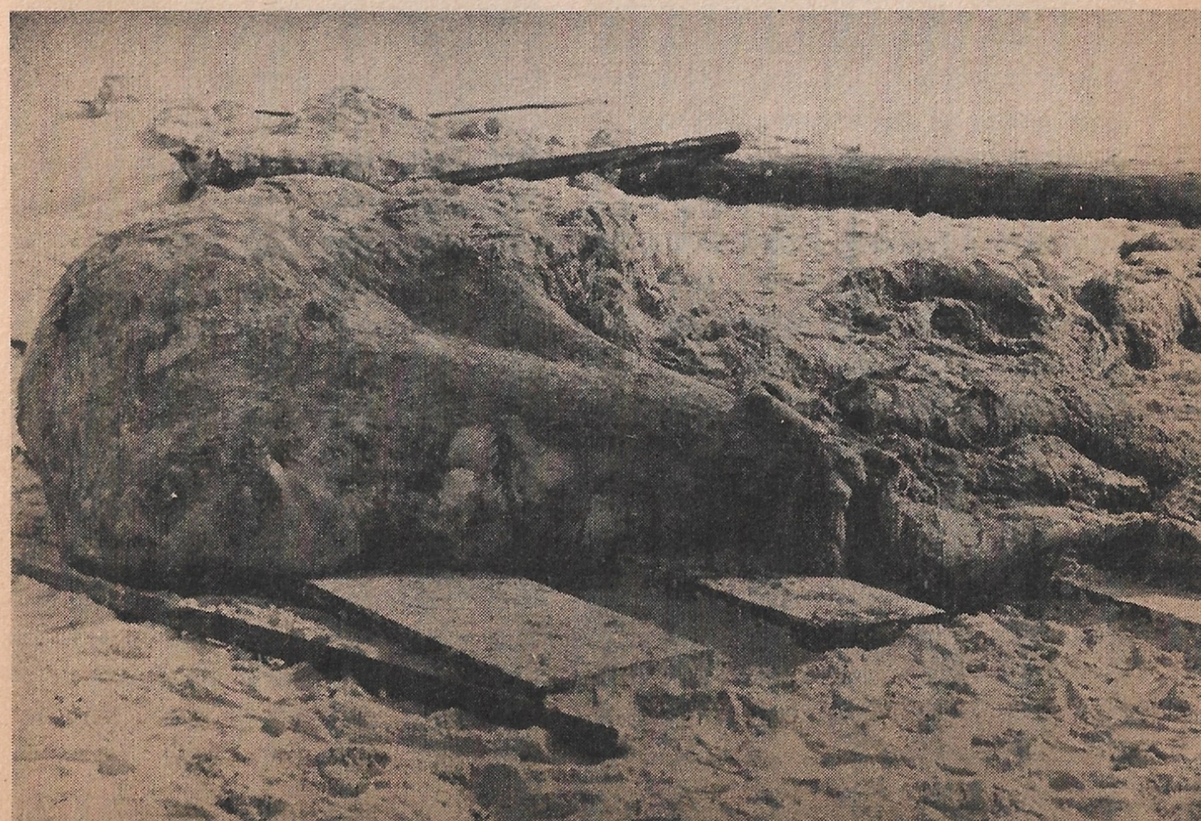
on them appeared in *The American Naturalist* in April 1897.

The more important drawing shows a pear-shaped body with the largest section near the broadly rounded posterior end. Due to mutilation and decay the head is almost unrecognizable but in the foreground appear what look like the stumps of five arms. The figure in the background, probably Dr. Webb, gives us some indication of the size of the carcass. The second drawing shows a side view with the thicker posterior end gradually tapering to the stumps of the arms, two of which are discernible.

Several days after these photographs were taken a Mr. Wilson claimed he excavated in the sand and found the fragments of the arms. He wrote Dr. Webb, "One arm was lying west of the body, 23 feet long; one stump of arm, west of body, about four feet; three arms lying south of body . . . longest one measured over 32 feet, the other arms were three to five feet shorter."

Soon after Mr. Wilson's examination a severe storm washed the carcass out to sea and cast it ashore again two miles farther south near Crescent Beach. The reported arms now were missing and, of course, this cast doubt on

When this January 1897 photograph was taken, the monster's carcass already had suffered extensive mutilation from storms and was in an advanced state of decay.



Dr. Webb's original description.

Dr. Webb wrote a series of letters to various scientists telling of his discovery. One of these was forwarded to Prof. Addison Emery Verrill of Yale University, New Haven, Conn. A systematic zoologist, Dr. Verrill was the author of over 350 scientific articles and had described more than a thousand new species. Of his numerous accomplishments in zoology he is best known for his research on cephalopods, the mollusc group to which the squids and octopuses belong. In the 1870's he had proven the legendary sea monster, the Kraken, was in fact the giant squid.

Professor Verrill consequently was much interested in the discovery of a huge octopus and published a brief report, based on information contained in Dr. Webb's letter, in the January 1897 issue of *American Journal of Science*. He tentatively concluded that the carcass must be a giant squid as no known octopus reached such gigantic size. But Verrill quickly reversed himself when Dr. Webb sent further details and photographs of the animal.

In the Sunday supplement for the *New York Herald* for January 3, 1897, Verrill published the first description of the unknown creature and called it a gigantic octopus. By comparing its proportions with smaller species, he estimated the arms must have reached 75 to 100 feet. The creature's 200-foot diameter would exceed the size of the largest known giant squids. He repeated this description in the February issue of *American Journal of Science* and formally named the beast *Octopus giganteus.*

During the second week of January 1897 Dr. Webb relocated the carcass in the new location to which the storm had moved it. With the aid of "four horses, six men, three sets of tackle, a lot of heavy planking and a rigger," he succeeded in freeing the monster from the sand and placing it on planks about 40 feet higher up on the beach. This permitted more careful examination and measurement of the specimen and a new set of photographs. He tried, unsuccessfully, to persuade Professor Verrill and Prof. William Healey Dall, Smithsonian's curator of molluscs, to come and study the creature where it lay. On the fifth of February Dr. Webb wrote that he visited the monster to collect samples of the flesh to send to Dall and Verrill for study.

While the specimens were in transit, Verrill published another article in the Sunday supplement of the *Herald*. It was a popular account based on Webb's letters and contains Verrill's only published speculation on the size, habitat and population density of these sea creatures. Verrill estimated that "the living weight of the creature was about 18 to 20 tons. When living it must have had eight enormous arms, each 100 feet or more in length, each as thick as the mast of a large vessel and armed with hundreds of saucer-shaped suckers, the largest of which could have been at least a foot in diameter.

"Its eyes would have been more than a foot in diameter. It would have carried 10 or 12 gallons of ink in the ink bag. It could swim rapidly, without doubt, but its usual habit would be to crawl slowly over the bottom in deep water in search of prey.

"We must reflect that wherever this creature had its home there must be hundreds or thousands of its kind, probably of equal size, otherwise its race could not be kept up. Its habitat is probably the broad plateau that extends out to sea about 200 miles off the coast of South Carolina, Georgia and North Florida, on which the water increases very gradually down to 200 fathoms."

* * *

ON FEBRUARY 23, 1897, the specimens forwarded by Dr. Webb reached Yale University. That same day Verrill wrote two letters in which he retracted his earlier identification. He states that he had received "some large masses of exterior integument preserved in formalin, in size from three to 10 inches thick, elastic, very tough and hard to cut, composed mainly of tough cords and fibers of white elastic connective tissue that were much interlaced and bound together with irregular cavities and canals in some places." Verrill concluded that the samples resembled the blubber of some cetaceans and that the creature could not have been an octopus but must have been a vertebrate animal!

The specimens sent to Smithsonian's National Museum were examined by Prof. Frederic Augustus Lucas who wrote in *Science* Magazine, "Professor Verrill would be justified in making a much more emphatic statement that the structure of the masses of integument from the 'Florida monster' resembles blubber and the creature was probably related to the whales. The substance looks like blubber and smells like blubber and it *is* blubber, nothing more nor less. There would seem to be no better reason for supposing that it was in the form of a 'baglike structure' than for supposing that stumps of arms were present."

Professor Verrill had difficulty

relating the large mass of tissue to any recognizable part of a whale. His best guess was that "it came from the head of a creature like a sperm whale in structure. . . ." But Verrill's son A. Hyatt Verrill mentioned the creature in his 1916 book, *The Ocean and Its Mysteries,* and stated that no scientist could guess as to what animal it came from. Since young Verrill was well-acquainted with his father's articles on the monster and his father was still living, we can suspect that Professor Verrill still was unsure about the creature's identification despite his earlier conclusion that it was a whale.

Except for Hyatt Verrill's mention of the creature in 1916, the only attention it received in the half century following its discovery was given it by the late Charles Fort, who included the find in his list of sea monsters in his 1931 volume, *Lo!* Not until 1957 was any further serious research done. In that year Dr. Forrest G. Wood, Jr., Curator of the Research Laboratories of Florida's Marineland, came upon a yellowed clipping while researching octopus behavior. His interest was aroused and Dr. Wood began to investigate the reported find. Unfortunately, no records report the disposition of the creature after Dr. Webb succeeded in dragging it up from the beach. The specimens sent to Yale have disappeared. When Peabody Museum's original building was torn down in 1911 the specimens housed there were widely scattered until the new museum was completed in 1926. Presumably the monster specimens were lost during this period.

In 1962 Dr. Wood discovered that the other two specimens of preserved tissue still existed at the Smithsonian Institution. The following year he persuaded a colleague, Dr. Joseph F. Gennaro, Jr., to cut away and examine a small piece of the preserved tissue for identification. Dr. Gennaro prepared microscope slides of the monster flesh and also slides from octopus, squid and whale. Using polarized light and comparing the connective tissue patterns Dr. Gennaro concluded the Florida creature slide resembled the octupus slide, had no similarities to the connective tissue of the squid and absolutely no structure pattern in common with any mammal including whales. His verdict was that the tissue had come from an octopus!

Unfortunately, shortly after Dr. Gennaro's examination the container holding the original specimens of tissue was misplaced during a move at Smithsonian and suffered a fate identical to that of the Yale specimens which had been lost some 50 years before. Because an article concerning the giant octopus written by Dr. Wood and Dr. Gennaro and published in *Natural History* in 1971 was met with scorn and derision, Dr. Gennaro later analyzed the last remaining fragment of tissue he had saved for further chemical examination. He concluded "the chemical constituents of the monster's collagen were of the type found in the octopus and that none of this type of tissue exists in the squid at all."

* * *

NOW, MORE THAN half a century after the unidentified carcass was found on the Florida beach, what do we know about giant octopuses? That one existed in 1896 and that its size, based on its mutilated remains, indicated an overall length of 100 feet is all we know. Anything more is speculation.

In the *Natural History* account Dr. Wood cites reports which suggest that such octopuses may have been sighted in 600-foot-deep waters off of Andros and Grand Bahama Islands in the Bahamas. If we assume the creatures are restricted to the Bahamas, then the Florida current that flows from the tip of Florida to Cape Hatteras, N.C., might have carried the carcass that washed ashore at St. Augustine in 1896. Or Professor Verrill may have been correct when he speculated that the creatures live off the southern coast of North America.

We are left with this question: Why haven't there been more reported sightings of these animals? Of course, if we do not recognize the possible existence of such an animal, then when they are sighted they may be mistakenly identified as known animals in the reports.

And yet 80 years have passed since the only representative of its kind was found and examined. Perhaps the words Dr. Webb wrote to Professor Dall were prophetic, "It will be worthwhile to make a good deal of effort if it is the 'only one.' "

THE COOKS' TOURS

ARRIVING for duty with the Fifth Organizational Maintenance Squadron, Minot Air Force Base, N. Dak., Master Sgt. Kenneth Cook discovered he was replacing another master sergeant named Kenneth Cook. Both men are married to women whose first names are Jo Ann. Each couple has four children, a girl and three boys, and two of the boys in each family are named Kenneth and Michael. — *Clarence E. Drumheller.*